



NOTEBOOKS FAQ

Q My ageing notebook seems to spend a lot of time accessing the hard disk when I use new applications, which is slowing everything down. Is there any easy way to speed it up again?

A It sounds as though your notebook is running out of memory. The hard disk access is caused by Windows using virtual memory. The best way to sort out this problem is to install more memory in your notebook.

First check how much RAM your notebook has at present. Right-click on My Computer and select Properties. At the bottom of the window that opens, you'll see how much RAM you have. Ideally you want around 512MB of RAM for Windows XP, or 128MB for older versions of Windows. But you'll need more than this to undertake tough tasks such as video editing.

The figure reported may be reduced due to memory allocated to the graphics chipset. A notebook with 512MB of RAM but with 64MB allocated to graphics will report 448MB of RAM. This is fine for a 512MB notebook, but a 256MB one will suffer from such a loss of resources.

If you don't have enough memory, an upgrade should be cheap. We recommend a visit to www.crucial.com/uk to get memory that matches your notebook. The front page has a simple drop-down menu, where you just select your manufacturer and model, and the website will tell you which memory module you need.

Most notebooks have hatches on the bottom that allow access to the memory slots. Shut down your notebook and find a small Philips-head screwdriver. Refer to your manual to see which of the hatches you need to open. Be sure to place the little screws somewhere safe as you go.

The slots appear as pictured below. Insert the new module into the slot at the back with the chips facing down, keeping it tilted up at a 30° angle while you ease it in. Once inserted, gently push the module down until it lies flat and the small clips on either side engage. Replace the hatch, turn on your notebook and check that the increased RAM is reported properly.

seth@computershopper.co.uk



Most notebooks have spare memory slots under a hatch on the bottom

REVIEW NOTEBOOK PC

ACER Aspire 9504WSMi

RATING ★★★★★

PRICE £1,130 inc VAT

SUPPLIER www.acernotebooks.co.uk,

08701 670819

DETAILS www.acer.co.uk



We reviewed Acer's Aspire 5514 in *What's New, Shopper* February 2006 (see Hotlist below) and gave it a five-star review for its combination of features and power. This month we're looking at its bigger brother, the 9504. The key difference is the display size, increased from 15.4" to 17", making the 9504 a fully fledged desktop replacement.

A number pad has been added alongside the keyboard, but this affected some keys. The arrow keys are half the width you'd expect, and the Enter button is barely twice the size of the letter keys. Luckily, the touch pad is large, accurate and offset to the left, so you won't accidentally touch it while typing. The chassis has over 20 ports, including five USB2 ports, a memory card reader and DVI output.

The 17" display is the brightest we've seen on a notebook. The gloss coating aids contrast and colour, but reflections from office lights are a problem. The 1,440x900 resolution gives lots of room to work, and enough pixels to make the best of HD video. It's the size of some small LCD TVs, and with its incredible brightness could easily stand in for one.

Acer has included a hybrid TV tuner like the one on the 5514. We love the Acer Arcade software, as it's based on CyberLink's PowerCinema 4 application. This lets you play back all your media

files from one easy-to-use, attractive interface. It includes an EPG to help schedule recordings. A large 100GB hard disk provides lots of storage space, while the DVD writer can be used for backups.

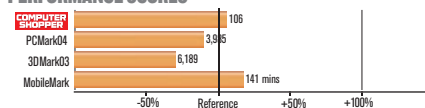
A pair of remotes is provided: one mini remote in the PC Card slot and a larger one with more buttons. There are dedicated control buttons on the front of the chassis, and an option to boot into a dedicated media player, thus avoiding Windows.

Inside the chassis is an ATI Mobility Radeon X700 graphics chipset. This is perfect for casual gamers, giving playable frame rates in the latest games. Application performance is excellent, with the 2GHz Pentium M 760 processor and 1GB of RAM providing plenty of power. It scored 106 overall in our benchmarks, partly due to a fast DVD writer. In practice, it will perform similarly to the 5514. Battery life is less than two-and-a-half hours, though, and it weighs almost four kilos, so you won't want to transport it far.

This brighter version of the 5514 has no big drawbacks apart from size. It's a terrific all-in-one entertainment notebook with real computing power.

Seth Barton

PERFORMANCE SCORES



✓ Incredibly bright display; great TV software

✗ Poorly designed keyboard; short battery life

SPECIFICATIONS 2GHz Intel Pentium M 760, 1GB RAM, 100GB hard disk, 256MB ATI Mobility Radeon X700 graphics, DVD+-RW DL drive, 17" LCD screen, weighs 3.7kg. **Part code** LX.A6105.060

HOTLIST NOTEBOOK PC

ACER Aspire 5514WLMi

RATING ★★★★★

PRICE £1,055 inc VAT

SUPPLIER www.acernotebooks.co.uk,

08701 670819

DETAILS www.acer.co.uk

The Aspire 5514WLMi is a perfect notebook for use around the home. It entertains you with a built-in analogue and digital TV tuner, 3D graphics to play the latest games and a large gloss-coated widescreen display for watching DVDs.

The 5514WLMi is a capable performer, with a fast 2GHz Pentium M processor and 1GB of RAM. For storage, there's a DVD writer and a large 100GB hard disk. This notebook made light work of our benchmarks, with an overall score of 95, and despite the large screen the battery lasted



almost three hours. It may not be cheap, but with all these features it's still good value.

SPECIFICATIONS 2GHz Intel Pentium M 760, 1GB RAM, 100GB hard disk, 256MB ATI Mobility Radeon X700 graphics, DVD+-RW DL drive, 15.4" LCD, weighs 3.1kg. **Part code** LX.A7705.032



REVIEW NOTEBOOK PC

HI-GRADE C2400

RATING ★★★★★

PRICE £650 inc VAT

SUPPLIER Hi-Grade 020 8532 6111

DETAILS www.higrade.com

The average price of a budget notebook in this month's *Labs* on page 158 is just over £560 including VAT. The C2400 from Hi-Grade costs a little more at £650, and it isn't as powerful as most of our budget models. Hi-Grade has invested the money in a lightweight widescreen chassis instead.

Weighing only 2.45kg, it is lighter than most notebooks at this price. It's slim but feels well built with absolutely no flex from its chassis. There's a 14" widescreen display, supporting a resolution of 1,280x768. While not as big as a standard 15" display, the higher resolution is useful when working on complicated applications.

We ran our suite of image-quality tests on the display. It had a slight graininess to it, but colour and greyscale tests were displayed well, and it's bright enough. The widescreen ratio is great for watching DVDs and we enjoyed *Spider-Man 2*, which had decent contrast and no motion blur.

The front of the chassis has an IR receiver, which works with a mini remote control stashed away in the CardBus slot. This means you can control DVD and CD playback from a distance. The speakers are good enough for a small notebook. They're quite clear, but lack volume and bass.

When you need to do some work, the keyboard won't let you down. The keys have plenty



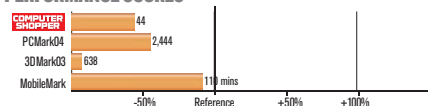
of travel and decent feedback and are all well proportioned. The touch pad isn't shaped to fit the widescreen display, but it's accurate in use. Three USB2 ports, a FireWire port and S-video out allow you to hook up to several devices easily. Digital camera owners will be pleased with the memory card reader that supports MMC, SD and MS.

Application performance is limited by a lack of memory. Hi-Grade has made a false economy by fitting only 256MB in this notebook. It struggles to deal with large files such as those in our image-manipulation test. If you want to take on anything but the simplest tasks we'd recommend an upgrade to 512MB. Even then the 1.4GHz Celeron M processor cannot compete with the excellent Pentium M range. Battery life was poor at less than two hours in our low-usage test.

The C2400 has a well-designed chassis with lots of entertainment options. Some home users won't be bothered by its lack of performance in our tests, but consider some of the cheaper alternatives in our Labs test before making a decision.

Seth Barton

PERFORMANCE SCORES



✓ Well-designed widescreen chassis

✗ Poor performance and battery life

SPECIFICATIONS 1.4GHz Intel Celeron M 360, 256MB RAM, 40GB hard disk, 128MB shared Intel GMA 900 graphics, DVD+/-RW +DL drive, 14" LCD screen, weighs 2.45kg

HOTLIST NOTEBOOK PC

HP Compaq nx6110

RATING ★★★★★

PRICE £453 inc VAT

SUPPLIER www.laptopsdirect.co.ukDETAILS www.hp.co.uk

HP's Compaq nx6110 won a Best Budget Buy award in our Labs test of budget notebooks in *Shopper* December 2005. This superb notebook has excellent build quality with a tough chassis and no-nonsense business looks. The keyboard and touch pad are a joy to use, and should last for a long time. The display is vibrant and the speakers are clear and loud.

It isn't a powerhouse but it will easily manage day-to-day tasks such as office applications or web browsing. If you need more performance, you can add 256MB of extra RAM for around £25. The battery lasted almost four



hours in our tests. It's a well-built notebook that was a good buy for £504, and is now a real bargain at just £453 including VAT.

SPECIFICATIONS 1.4GHz Intel Celeron M 360, 256MB RAM, 40GB hard disk, Intel 915GM integrated graphics, CD-RW/DVD combo drive, 15" LCD. Part code PY496ET

BYTE SIZE!



Our round-up of the best new gadgets and software

BLUETAKE i-PHONO BT420

RATING ★★

PRICE £101 inc VAT

SUPPLIER www.expansys.comDETAILS www.bluetake.com

This Bluetooth headset comes with an audio dongle, which can transmit music to the headphones from any MP3 player's headphone output. The headset has a fold-out microphone and can be paired with up to four other devices, so you can use it to make calls with a Bluetooth mobile phone. We weren't impressed by the echo we heard when trying this, though.

The BT420s have a neckband and are held in place by soft loops over the ear. They're comfy, but you soon begin to notice their weight. They don't look or feel that classy, but they reproduce music well. Overall, though, they're a little expensive compared to the competition.

Simon Handby



FSP 400W Green PS FSP400-60GLN

RATING ★★★★★

PRICE £51 inc VAT

SUPPLIER www.microdirect.co.ukDETAILS www.fsp-group.com

It might not look special, but this 400W PSU is the most environmentally friendly power supply. It has an efficiency rating of 85 per cent or greater, and FSP says it's the first PSU to comply with both the RoHS and WEEE directives that come into force on 1st July. These will obligate manufacturers to avoid using harmful substances and introduce a weight-based environmental tax on the importers of electrical equipment.

Green credentials aside, this is a competent supply for a typical PC. It has six Molex plugs, two SATA connectors and plugs for a single floppy drive and PCI Express graphics card. It's only marginally more expensive than a typical 400W supply, too.

Simon Handby



REVIEW NOTEBOOK PC**AVERATEC
3715**

RATING ★★★★★

PRICE £734 inc VAT

SUPPLIER www.click4it.co.uk, 08452 303084DETAILS www.averatec.co.uk

White has become a popular colour for devices in recent years. Apple started the ball rolling with the iPod, and also produced white iBook notebooks. If you want that stylish white finish but don't fancy learning Apple's OS X, Averatec's 3715 may be just the thing for you.

When closed the 3715 is only half white, with the lower part of the chassis finished in a light silver. Open the lid, though, and you're computing in a winter wonderland. The keyboard is pure white, with secondary key functions picked out in light blue. Unfortunately, there isn't a lot of travel to the keys and the left-hand side flexes a little. Below the keyboard, the accurate touch pad has a pair of scroll arrows built in for scrolling around windows.

The chassis has all the ports you'd expect on a notebook similar in size to an issue of *Shopper*. On the front is a switch for deactivating the wireless network card, which is useful on planes and when you need to conserve battery life. There's a FireWire port and memory card reader with support for SD, MMC and MS formats on the left. The right side has a D-sub output, in white, and three USB2 ports.

There are more clean bright whites to be had from the excellent display. It's also evenly lit and passed all our usual image-quality tests with ease. The 12.1" display supports a resolution of



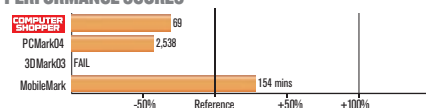
1,024x768. It gives enough desktop space to deal with day-to-day tasks such as office applications and web surfing, but will feel cramped when using complicated applications such as video editing.

The 3715 isn't particularly suited to such demanding tasks, anyway. Its AMD Mobile Sempron 3000+ processor and 512MB of RAM are more than enough to give you a smooth Windows experience, but if you have a lot of work to do you should go for a larger, more powerful Pentium M notebook.

The 3715 scored respectably in our application benchmarks. It's a shame that battery life wasn't so good, providing just 154 minutes. We expect better from a notebook that's small and light enough to carry around for extended periods of time.

It's hard to dislike the 3715; it's a well-designed notebook with great styling. If you like the looks and want something light and compact for use around the home, it's a fine choice. You can get a similarly specified notebook for less in this month's Labs on page 158, but you won't find one that's quite as attractive.

Seth Barton

PERFORMANCE SCORES

✓ Great-looking white chassis; small and light

✗ Poor battery life for an ultra-portable

SPECIFICATIONS 1.86GHz AMD Mobile Sempron 3000+, 512MB RAM, 80GB hard disk, 128MB shared Intel GMA 900 graphics, DVD+/-RW drive, 12.1" LCD screen, weighs 1.9kg. **Part code** AV3715-GH1

HOTLIST NOTEBOOK PC**ROCK
Xtreme CT 2.0GHz**

RATING ★★★★★

PRICE £1,409 inc VAT

SUPPLIER Rock Direct 08709 909090

DETAILS www.rockdirect.com

Rock's Xtreme CT 2.0GHz lets you play the latest games without the need for a bulky desktop PC. The nVidia GeForce Go 7800 GTX chipset provides blistering frame rates in all the latest and most demanding titles. It stormed through our standard Doom 3 test with a score of 85.2fps. The excellent 17" widescreen display works best with compatible titles such as Call of Duty 2.

There's a fast 2GHz Pentium M processor and 1GB of RAM, which helped it to a respectable 92 overall in our benchmarks. The 60GB hard disk is a bit on the small side, though, so you'll have to delete unused games regularly.



Battery life is a paltry 95 minutes, but that's to be expected with this much graphical muscle. The Rock is a well designed and powerful notebook that is ideal for gamers.

SPECIFICATIONS 2GHz Intel Pentium M 760, 1GB RAM, 60GB hard disk, nVidia GeForce Go 7800 GTX graphics, DVD+/-RW DL, 17" widescreen LCD. **Part code** XCT-2.0

**BYTE
SIZE!**

Our round-up of the best new gadgets and software

**MICROSOFT
Wireless Laser Mouse 6000**

RATING ★★★★★

PRICE £34 inc VAT

SUPPLIER www.dabs.comDETAILS www.microsoft.com

Just like all good Bond villains' secret weapons,

Microsoft's new wireless mouse uses a laser rather than the normal LED to track movement. This gives smoother, more precise movement. Our cursor managed to sail smoothly across the screen with little hand movement.

The scroll wheel has a tilt function, so you can scroll sideways through windows. There's also a browser Back button and a smaller button that pops up a magnifier. These buttons can be modified with the excellent IntelliMouse software.

It's a well-built mouse but it's designed for right-handed people, and those on a tight budget should opt for a standard optical mouse instead.

David Ludlow

**DVD Asylum**

RATING ★★

PRICE £11 inc VAT

DETAILS www.dvd.co.uk

If you were the bored wife of a doctor at a 1950s mental health hospital, how would you pass the time? Coffee mornings? The wireless? An ill-advised affair with a handsome but troubled and potentially violent

patient? There's little doubt which option Stella (Natasha Richardson) will take. When her lover (Marton Csokas) escapes from the institution she decides to throw caution to the wind, whatever the consequences. A film with two such unsympathetic protagonists is unlikely to engage the viewer's emotions, and Richardson's flat, one-note performance does not help. The supporting cast – including Sir Ian McKellen and Hugh Bonneville – provides class, but this is still a depressing, predictable drama that moves at a torturous pace. The disc includes cast interviews.

Chris Miller





BYTE SIZE!



Our round-up of the best new gadgets and software

THINK OUTSIDE Stowaway Travel Mouse

RATING ★★★★★

PRICE £41 inc VAT

SUPPLIER www.expansys.com

DETAILS www.thinkoutside.com



The Stowaway Travel Mouse is a Bluetooth mouse that can be used with a PC and a PDA. The mouse is tiny and, although it is an awkward shape, feels well built. To install the mouse in Windows, just search for the device and pair it with your PC. You will need to synchronise your PDA with

Windows and install some third-party software to make it work on Windows Mobile devices, though. The mouse is compatible only with a handful of PDAs from Dell and HP, as well as a couple of Windows smartphones.

The Travel Mouse works well as a Bluetooth mouse. However, unless you really need a mouse that works with a PDA, there are cheaper options available.

Chris Finnamore

MYMEMORY BT-H4-T Bluetooth headset



RATING ★★★★★

PRICE £18 inc VAT

SUPPLIER MyMemory 01534 789922

DETAILS www.mymemory.co.uk

Bluetooth headsets let you use your mobile while keeping your hands free and with no trailing wires.

MyMemory's BT-H4-T is a budget headset, but it is easy to use and has decent sound quality.

The headset's instructions are confusing, but we eventually worked out that to put the headset into pairing mode you must hold the answer button down for six seconds. Once the status light is flashing red and blue, just search for the headset in your phone's Bluetooth menu and pair the two.

The BT-H4-T has decent sound quality, and conversations were easily understandable. This is a decent Bluetooth headset at a very low price.

Chris Finnamore



CHOOSING A...

NOTEBOOK COMPUTER

Follow our simple step-by-step advice to find the perfect notebook PC for your needs and your budget

1 The minimum specification of notebook we recommend, shown below in grey, is a good starting point when working out your ideal system. This is an average notebook that should cost around £700. It is not particularly powerful or, at 3kg, particularly portable. Mobile processors increase battery life and are now fairly common, even at this price.

2 Most people want a better notebook than the minimum – but what is your definition of better? Do you want something more powerful, or lighter and better-looking? Desktop replacement notebooks, which approach the power of a full-size PC, are necessarily large to house the extras. These usually include a desktop processor and larger battery to keep the whole lot running for any length of time.

3 If portability is your main priority, keep the spec modest (a Pentium M 1.7GHz with a 15" screen, say) but spend more. This will buy you an executive notebook with the kind of cutting-edge design required to miniaturise without compromising usability. Clever chassis, expensive batteries and the finest materials are prerequisites for superior ultra-portable notebooks.

4 There are features you can add to a notebook without piling on weight or reducing battery life. A 60GB, 80GB or 100GB hard disk and 1GB of RAM won't hurt. Another possibility is an external drive that you can carry with you or leave at home according to the nature of your trip. Some ultra-portables can attach to an optional docking station, which incorporates drives, ports and extra power for when you need it. It's the best of both worlds, but tends to be expensive.

5 If you're not swayed by ultra-portable chic, you can get a lot more for your money. Today's desktop replacements pile on the features but still keep the price well under £1,500. Alternatively, go for a balanced package: middling power and price in a reasonably portable package. Which one you pick depends on how much power and which features you need, so consider each in turn.

6 Notebooks run the same software as desktops, so our advice on the core specification is the same (see page 16). However, hard disks go up to only

100GB and even the best notebook graphics lag slightly behind desktops.

7 DVD rewriter drives are standard and will allow you to burn CDs and DVDs on the move. If you want to watch movies, consider buying a notebook with a widescreen display.

8 A 1,024x768 screen is the entry level these days, but its size will depend on the notebook's purpose. Ultra-portables might have screens as small as 9". Widescreen displays have resolutions of 1,200x768 upwards but make for a bulkier notebook.

9 A modem and regular 10/100 Ethernet port are standard. Centrino notebooks also have wireless 802.11b or 802.11g networking (WiFi), and it's becoming increasingly popular on all models. IEEE-1394 (FireWire) and Bluetooth can be added to the default TV-out and USB2.0 ports. Memory card readers are extremely common, so check that your camera or MP3 player's format is supported.

10 Once you're happy with your specification, start to shortlist some models you can afford. Check the weight and battery life of each of them. If these aren't acceptable, you need to reconsider how much power and which features you really need.

FILL IN YOUR SPECS HERE

(Recommended minimum in grey)

PROCESSOR: 1.4GHz Intel Celeron M360

MEMORY: 512MB DDR

HARD DISK: 40GB

STORAGE: DVD rewriter

GRAPHICS: Integrated
(using system memory)

SCREEN: 1,024x768 LCD

EXTRAS: Wireless networking, FireWire

CONNECTORS: Three USB2, network, modem

SOFTWARE: Windows XP Home Edition

WEIGHT: 3kg